volumetric boundary of an [exemplary] object in a 3D space [as shown in Figure 6C].

Remarks

The above amendments have corrected some informalities in the Specification. The Applicants submit that no new matters have been introduced.

Statement of the Substance of the Interview

The Applicants appreciate a telephonic interview among the undersigned (representative of the Applicants), the Examiner Mr. Scott A. Wallace, and the Examiner's supervisor Mr. Mark Zimmerman on December 17, 2002. In the interview, Claim 1 was discussed with reference to two cited references Dufour (US Patent No. 6,351,572) and Kawamura et al (US Patent No. 5,222,159) which are respectfully referred to as Dufour and Kawamura, respectively, hereinafter.

The representative of the Applicants pointed out that there was no motivation to combine these references in the manner proposed by the Examiner. Nevertheless, even if these two references were to be combined, the combination would still fail to teach or suggest the features recited in claim 1.

As described in lines 1-5 of Col. 2 in Dufour, a disparity map is derived from a multi-view matching independently on each view, where each view corresponds to one of the original images. There is no any teaching in Dufour about the use of mask images as recited in Claim 1. Figure 5 and lines 14-17 of page 16 of the pending application define that mask images are binary (silhouette) images. Although Dufour mentions that binary data is used, in B step of Col. 2, Dufour fails to teach or suggests the use of such mask images, instead, showing that a tree-structured representation is used to describe binary-valued volumetric data enclosed by a bounding cube.

The Examiner stated in his latest review that Dufour might do a process similar to the masking process. The representative of the Applicants respectfully challenged that it was the Examiner's own knowledge in the art to infer such

conclusion from Dufour because there is no clear teaching nor suggestion in Defour about "generating a 3D region from a sequence of mask images, each of said mask images derived from one of said sequence of images by projecting the object onto a specific plane" (*emphasis added*).

On the other hand, the Examiner in the latest Office action admits that Dufour does not disclose generating mask images and thus applies the mask image concept in Kawamura to Dufour. Given the definition and use of the mask images (*see*, for example, 606 of FIG. 6A and 608 of FIG. 6B) of the pending application, Dufour would fail with Kawamura to derive the disparity map because no depth information could be relied upon in the mask images and it is well known that all a mask image has is a silhouette. Further, the mask image defined or generated in Kawamura (see lines 20-35 of Col thereof) is substantially different from the mask image recited in Claim 1. Hence, the Applicants submit that the combination of Dufour and Kawamura, together with other cited references, has failed to teach or suggest the combined features recited in Claim 1.

No conclusion was reached in the interview. The representative of the Applicants was suggested to explain in more detail his arguments regarding the masking process. It is believed that the Response to Second Office Action filed 12/17/2002 and the remarks presented herein have sufficiently explained the arguments and further demonstrated the distinct features recited in Claim 1 with respect to the two cited references.

The Examiner is respectfully requested to contact the undersigned at (408)777-8873 if any questions or issues remain.

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to "Commissioner of Patents and Trademarks, Washington, DC 20231", on January 5, 2003. (Faxed to (703)872-9314)

Name: Joe Zheng
Signature: J Zheng

Respectfully submitted;

J Zheng

Joe Zheng
Reg.: No. 39,450

Clean Version for amendments to the Specification

1. Delete lines 10-12 of Page 9. 10

2. Amend the sentence in lines 6-10 of page 30 as follows:

The same procedure can be recursively applied until the cubes are subdivided up to the refinement, then the collection of "black" cubes defines a volumetric boundary of an object in a 3D space.